



Commonwealth of Kentucky

MASTER AGREEMENT

IMPORTANT

Show Doc ID number on all packages, invoices and correspondence.

Doc Description: Retrofit Snow and Ice Trucks		
Doc ID No: MA 605 0600000570 5	Proc Folder:	
Procurement Type:		
Effective Date:	Expiration Date:	Not To Exceed Amount
Administered By:	Cited Authority:	
Telephone:	Issued By:	

Reason For Modification:

Doc Description: District 9 - Boyd Co		
Doc ID No: MA 605 0600000570 5	Proc Folder: 37402	
Procurement Type: Standard Goods		
Effective Date: 2006-11-30	Expiration Date: 2013-04-15	Not To Exceed Amount
Administered By: LINDSAY JACKSON	Cited Authority: FAP111-35-00-G	
Telephone: 502-564-4630	Issued By: LINDSAY JACKSON	

Reason For Modification: Change fourth paragraph under "Operations" in Section 1.03 from:

Plowing will be defined as the plow shoe or wheel being in contact with the pavement. This will reduce wear on the plow blade and prolong subsequent replacement of the blade. No down time will be charged to the Vendor for reasonable replacement time. However, the Vendor is responsible for furnishing the blade at his cost. Blades shall be made of metal.

to:

Plowing will be defined as the plow blade being in contact with the pavement. No down time will be charged to the Vendor for reasonable replacement time. However, the Vendor is responsible for furnishing the blade at his cost. Blades shall be made of metal.

Both parties are in agreement.

V E N D O R	LOVELL POLLEY
	RR2 BOX 510
	VANCEBURG KY 41179
	US

Line	CL Description	Delivery Days	Quantity	Unit Issue	Unit Price	Contract Amt	Total Price
1	Retrofit Snow & Ice Truck Boyd Co (Tandem) NEW	0	0.00	EA	19,500.00000	0.00	0.00

Extended Description

Location of Base of Operations: Boyd County - District 9

Total number of units required: 2 Trucks - Tandem and 12' Plow

1. Serial number: 1M2P198C5KW003874
- Owner/make: MACK / TRI-AXLE / LOVELL POLLEY
- Model year: 1989
- G.V.W.: 80,000
- Lienholder: NONE

Extended Description

2. Serial number: 1HTGGG3T4K682851  
 Owner/make: INTERNATIONAL / LOVELL POLLEY  
 Model year: 1989  
 G.V.W.: 80,000  
 Lienholder: US BANK

Bid Item: Retrofit

2 Trucks offered at \$19,500.00 per truck/lump sum \*\* annual payment.

\*\* This is a bid for an annual payment over a period of seven (7) years.

Hourly price for hauling salt, 20 ton net load, in each county and adjoining area (estimate: 75 hours per season):

\$ 67.00/hour

The Vendor is eligible for additional points by providing a complete Retrofit Truck Unit(s) on a specified completion date that is a minimum of fifteen (15) days prior to the specified contract completion date.

Vendor's Proposed Retrofit Completion Date: NOV. 30, 2006

The Vendor is also eligible for additional points by providing like-new equipment attachment units (i.e., V-box hopper spreaders or snowplows) that have been purchased within the last three (3) years in lieu of providing used equipment attachment units that are in good working order and of high quality.

Vendor is providing like-new Equipment Attachment Units (Purchased within the last three (3) years: Yes        No X)

The Vendor is further eligible for additional points by providing new equipment attachment units (i.e., V-box hopper spreaders or snowplows) in lieu of providing used equipment attachment units that are in good working order and of high quality.

Vendor is providing new Equipment Attachment Units: Yes X No       

VENDOR REP: LOVELL POLLEY

VENDOR PHONE: 606-798-6921

VENDOR EMAIL: lyndalyndpm@windstream.net

Line	CL Description	Delivery Days	Quantity	Unit Issue	Unit Price	Contract Amt	Total Price
2	DELETED LINE	0	0.00	HR	0.00000	0.00	0.00

Extended Description

Line	CL Description	Delivery Days	Quantity	Unit Issue	Unit Price	Contract Amt	Total Price
3	Training on an annual basis	0	0.00	HR	25.00000	0.00	0.00

Extended Description

Line	CL Description	Delivery Days	Quantity	Unit Issue	Unit Price	Contract Amt	Total Price
4	Salting and Plowing Actual Operation	0	0.00	HR	90.00000	0.00	0.00

Extended Description

Extended Description

Line	CL Description	Delivery Days	Quantity	Unit Issue	Unit Price	Contract Amt	Total Price
5	Dedicated Service Annual Payment per year	0	0.00	EA	2,000.00000	0.00	0.00

Extended Description

Line	CL Description	Delivery Days	Quantity	Unit Issue	Unit Price	Contract Amt	Total Price
6	DELETED LINE	0	0.00	HR	0.00000	0.00	0.00

Extended Description

Total Order Amount:	0.00
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## **Section 1—Specifications or Scope of Work**

### **1.00—Definitions**

Definitions for **ALL** items:

#### **ANNUAL RETROFIT PAYMENT - Per Truck/Lump Sum**

**SALT HAUL FEE** - Hourly price for hauling salt, 10 ton net load for single axle or 20 ton net load for tandem, in each county and adjoining area shall be at the same rate paid for snow and ice removal plowing.

**COMPLETED RETROFIT INSPECTION DATE** - The Vendor must have all trucks retrofitted and pass an inspection by the Department prior to November 1 each year.

**NEW - New equipment attachment units (i.e., V-box hopper spreaders or snowplows) in lieu of providing used equipment attachment units that are in good working order and of high quality.**

**DEPARTMENT** – Understood to be synonymous with the term, Commonwealth of Kentucky, Transportation Cabinet, Department of Highways.

**VENDOR** - Understood to be synonymous with the term "Contractor".

### **1.01—Truck Specifications**

#### **GVW:**

Single axle trucks will be, at a minimum, a G.V.W. rating of 33,000 pounds with a 12,000-pound front axle rating.

Tandem trucks having a minimum G.V.W. rating of 48,000 pounds with a 12,000 pound rated front axle (Light Tandem) shall be acceptable **ONLY** in counties requesting single axle trucks or tandem trucks. These trucks shall be equipped with a 10' (feet) snowplow blade. Contracts will be awarded on the type of truck (single axle or tandem) specified by the vendor.

Tandem trucks will be, at a minimum, a twin screw tandem and have a G.V.W. Rating of 56,000 pounds with a 16,000-pound front axle as stated on the Vehicle Identification Number (VIN) Plate.

Trucks that do not meet the minimum weight specifications may be modified to meet stated requirements. Two procedures exist that will provide a means to increase the weight ratings whereby a truck may meet or exceed the minimum specifications. The acceptable options are adding additional leaf springs on the front axle or installation of a timbren kit. Vendor shall provide documentation from the supplier providing the selected method of modification along with the amount of the additional weight rating capacity.

#### **INITIAL INSPECTION:**

**Trucks will be of good general appearance, be free of human graphic art, be in excellent**

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**mechanical condition, and be approved for use by a Department inspection team. At the initial inspection of the Vendor's trucks, the Vendor will provide a written list of proposed required attachments to the trucks, including make and model numbers.**

The Department will require an inspection of the Contractor's equipment prior to November 1 each year of the Master Agreement Contract. Any repairs or equipment parts required by the Department inspection team, for passage of the inspection, shall be the responsibility of the Contractor and will be incidental to the bid submitted for the truck retrofit. (See Section 2.14 for additional details.)

#### **HYDRAULICS:**

Trucks will have the necessary hydraulic, electrical and structural modifications to accommodate the specified snowplow, ground speed control unit, liquid chloride solution dispensing unit, and V-box hopper spreader (minimum 5.6 cubic yard capacity for single axle trucks) (minimum 13 cubic yard capacity for tandem trucks). A trial hookup will be required. (See attached specifications for guidance).

#### **COMMUNICATION SYSTEM:**

**2 WAY RADIO SYSTEM:** Trucks will be equipped with 2-way radio communications on the Department's specified frequency and will be operated under the Department's FCC license. (See attached specifications for guidance). The radio unit will be used (operated) in accordance with FCC regulations at all times and will only be used during the time the trucks are performing snow and ice removal operations for the Department. There will be no exceptions. Any violation of FCC regulations will result in, but not be limited to, the cancellation of the Master Agreement Contract.

#### **2 WAY RADIO SPECIFICATIONS: VHF (150-160 MEGAHERTZ) DASH-MOUNTED - DISTRICTS 1 - 12:**

General: the two-way radio will be the latest improved model in current production (as offered to the commercial trade), will be of good quality as to workmanship and materials used, and will comply with the following:

- 1) Will operate from a 12 volt, direct current negative ground source.
- 2) Will be a multi-channel synthesized VHF high-band unit, field programmable to at least 5 channels per district, CTCSS encode and decode, carrier control timer, transmitting ANI (Automatic Number Identification) information adhering to the Motorola Digital MDC (Mobile Data Communication) 1200 specification. This unit must be capable of transmitting simultaneously the necessary frequency, audio, CTCSS and Identification information. Should be similar to Motorola CM300 or CDM1250.
- 3) Should be programmed and ready to operate with the frequency channel and tone as per the frequency list for Districts included as an attachment.
- 4) Will meet EIA, MIL STD 810 C & D specifications for shock and vibration.

Transmitter:

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- 1) Will be solid state and will be capable of producing forty (40) watts of output (EIA).
- 2) Frequency stability: plus or minus 0.0005 percent.
- 3) Modulation: plus or minus 0.0 to 2.5 kilohertz.
- 4) Spurious and harmonic emission: - 61 decibels.
- 5) Audio response: EIA RS-152-B.
- 6) Audio distortion: 5 percent.
- 7) Will be FCC type accepted.

**Receiver:**

- 1) Frequency stability: plus or minus 0.0005 percent.
- 2) Sensitivity: 0.35 microvolt for 12-dB EIA Sinad.
- 3) Selectivity: - 70 decibels at plus or minus 20 kilohertz (EIA 2-signal).
- 4) Spurious and image rejection: - 70 decibels.
- 5) Intermodulation: - 70 decibels.
- 6) Modulation acceptance: plus or minus 7 kilohertz.
- 7) Audio output: 3 watts at 5 percent distortions.
- 8) Audio response: EIA RS-204-C.

**HEADLIGHTS:**

Trucks will be fitted with additional headlights that will light the roadway in front of the snowplow and the rear of the spreader box. (See attached specifications). These lights will be mounted and operated in a manner so as not to blind oncoming traffic.

**ADDITIONAL LIGHTING:**

Trucks will be equipped with two amber flashing lights as specified, one on the truck cab and the other on the rear of the V-box hopper spreader. These lights will be mounted so that a minimum of one light will be visible at all times from either the front or the rear of the vehicle. Warning strobe lights shall cover a 360 degree effective area and shall penetrate bright sunlight, haze, fog, smog, and darkness. The dome lens shall be amber in color, utilize 360 degree optics, and have a height of 4 inches. Warning strobe lights shall produce not less than 60 single flashes or 120 double flashes per minute and 12 joules per main flash. (See attached specifications for the type of light and for the light intensity.)

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## **MISCELLANEOUS EQUIPMENT:**

Trucks will have windshield wipers that are in good repair and that will operate under adverse snow plowing conditions. Trucks will have excellent cab heating and defrosting systems. Trucks will also have an operating engine hour meter or similar timing device.

**Trucks will display a specified statement of contract operations on each door or on each side of the truck body in a highly visible location.**

## **1.02—Attachment Specifications**

### **SNOW PLOW, HYDRAULIC REVERSING (10 FOOT) FOR SINGLE-AXLE TRUCKS:**

The snowplow unit will be of the straight blade reversible type. The moldboard will be a minimum of ten (10) feet long and thirty-four (34) inches high and will be constructed with a minimum of six (6) vertical ribs. The unit will be curved for proper rolling of snow forward for high-speed snow removal. The moldboard will have an integral, curved snow shield that extends a minimum of twelve (12) inches ahead of the cutting edge. The moldboard thickness will be a minimum of ten (10) gauge steel and will have a two-piece cutting edge of five (5) feet, with a minimum size of one-half inch thick by six (6) inches wide, and be equipped with standard highway punchings.

The unit will be equipped with a trip spring assembly to prevent damage to the plow and the truck. This assembly will permit the moldboard to trip forward when the plow strikes an obstruction and then return to its normal position when the obstruction is removed. The unit will be equipped with adjustable skid shoes or wheels to stabilize the plow and reduce the wear to the cutting edge. The hinge point center of the snowplow unit will be a minimum of sixty (60) inches. The plow assembly will be equipped with a hydraulic mechanism to turn the moldboard to any desired position, to a maximum of thirty-five (35) degrees to the right or to the left from the centerline and lock, or remain fixed in position. The force on the blade will not exert a force on the hydraulic system in order to hold the blade in the correct position.

The hydraulic unit and any hoses provided will be rated for a minimum of 2500 pounds per square inch.

The unit will be recommended for a 33,000 gross vehicle weight dump truck equipped with a 12,000-pound front axle or a 48,000 G.V.W. tandem equipped with a 12,000 pound rated front axle.

The unit will be equipped with a heavy-duty bumper-to-frame hitch assembly, with adjustable arms that attach the unit to the front axle with a swivel bracket that allows the axle to move independent of the push frame. \*All pushing force will be transmitted to the truck frame through the bumper attach points. The hitch assembly will be designed for a snowplow unit weighing more than 1500 pounds.

The distance between the front bumper of the truck and the centerline of the front axle will be approximately fifty (50) inches. The plow will be raised hydraulically and will have a minimum lift of ten (10) inches from road surfaces with a cylinder having a minimum bore of three and one-half inches, inside diameter.

The hydraulics will be supplied by the truck hydraulic system with quick disconnects located

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approximately twelve (12) inches behind the front bumper. The unit will require a maximum of 1450 pounds per square inch to lift the plow. Quick disconnect couplings supplied with the hoses will be Snap-Tite, H Series Valved Nipples, or equal -8 Size (three required).

All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual snowplow unit. Each box will contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

\*Alternate hitch assemblies are acceptable.

#### **HOPPER SPREADER FOR A SINGLE-AXLE DUMP TRUCK (MINIMUM SIZE – 5.6 CUBIC YARDS):**

General: the hopper spreader will have a minimum capacity of five and six-tenths (5.6) cubic yards. The unit will be a hopper-type body complete with a built-in materials spreader suitable for mounting in a single-axle dump truck.

The unit will be of sturdy construction and will be furnished in a completed state and ready for mounting and operation. The spreader will comply with the requirements stated in these terms and conditions. Any parts or attachments necessary to form a complete working unit will be furnished.

The spreader will be capable of spreading granular salt in a uniform manner at specified rates ranging from a minimum of 250 pounds for each one-lane and two-lane mile at speeds ranging from ten (10) to thirty (30) miles per hour. The rate of 300 pounds for each two-lane mile will be achieved at ten (10) miles per hour.

Body: the body will be of heavy-duty welded construction. Sides of the body will have a minimum of 45 degrees of slope for the easy flow of deicing materials onto the conveyor chain. The body side support members will be designed with angles or channel members for added strength. There will be a minimum of five (5) upright side supports on each side of the body constructed of a minimum of ten- (10) gauge steel.

These supports will extend to the full height of the body taper. The hopper will be constructed so that the rearmost upright support rests just inside the dump body. The top rim of the hopper box will be approximately forty-eight (48) inches above the floor of the dump body.

The unit will be equipped with a hinged type protective cover grill screen that is two and one-half inches (2 1/2) by two and one-half (2 1/2) inches by five-sixteenth (5/16) of one inch in size, and that is elevated in the center to keep large objects from entering the box.

Conveyor: the conveyor will have an overall width of twenty-four (24) inches. The conveyor drive will be adequate for the types of material being spread. The conveyor plate will be replaceable. The conveyor chain will be protected from coarse material entering the chain links that may cause damage.

Provisions will be made to lubricate the front chain bearings while the unit is installed on the dump truck. The conveyor will be driven with a hydraulic motor having a displacement of six and two-tenth (6.2) cubic inches, and a gear reduction unit with a fifty to one (50:1) ratio.



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Spinner assembly: the spinner assembly will consist of a polyurethane disc, eighteen (18) inches in diameter, with six (6) vanes formed into a single unit attached directly to the shaft of the hydraulic drive motor. The salt discharged from the conveyor will travel (or slide) in a chute to the spinner.

The chute will be smooth, non-clogging, and will have a hinged or removable top. Four (4) adjustable deflectors will define the salt discharge pattern.

Control valve: the control valve will be a fluid controls number 2FFL12-D6-6-6-7/15S, or equal, and is noted here for information only, as it will exist on the truck as a standard feature. The central hydraulic system installed on the truck will be used to power this control valve.

Feedgate control: the feedgate control unit will have an adjustable control for the amount of material being spread and to maintain a fixed self-locking setting.

Lift hooks: the hopper spreader unit will have four (4) lift hooks, one located at each corner of the hopper.

Dump body mounting: the hopper spreader will be secured to the dump body to prevent the spreader body from bouncing or sliding during travel. A channel member will extend to the side of the dump body and will lock on the tailgate locks to prevent movement of the spreader.

Miscellaneous: all hydraulic hoses will be of sufficient size and will be rated at 2,500 pounds per square inch. Quick disconnect couplings will be provided for hoses as follows: Snap-Tite, H series valved nipples, or equal. The spinner will be -8, the auger will be -12, and the return will be -20. All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual hopper spreader unit. Each box will also contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

## **SNOW PLOW, HYDRAULIC REVERSING (12 FOOT) FOR TANDEM TRUCKS:**

The snowplow unit will be of the straight blade reversible type. The moldboard will be a minimum of twelve (12) feet long and forty (40) inches high and will be constructed with a minimum of six (6) vertical ribs. The unit will be curved for proper rolling of snow forward for high-speed snow removal. The moldboard will have an integral, curved snow shield that extends a minimum of twelve (12) inches ahead of the cutting edge. The moldboard thickness will be a minimum of ten (10) gauge steel and will have a two-piece cutting edge of six (6) feet, with a minimum size of one-half inch thick by six (6) inches wide, and be equipped with standard highway punchings.

The unit will be equipped with a trip spring assembly to prevent damage to the plow and the truck. This assembly will permit the moldboard to trip forward when the plow strikes an obstruction and then return to its normal position when the obstruction is removed. The unit will be equipped with adjustable skid shoes or wheels to stabilize the plow and reduce the wear to the cutting edge. The hinge point center of the snowplow unit will be a minimum of sixty (60) inches. The plow assembly will be equipped with a hydraulic mechanism to turn the moldboard to any desired position, to a maximum of thirty-five (35) degrees to the right or to the left from the centerline and lock, or remain fixed in position. The force on the blade will not exert a force on the hydraulic system in order to hold the blade in the correct position.

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The hydraulic unit and any hoses provided will be rated for a minimum of 2500 pounds per square inch. The unit will be recommended for a 56,000 pounds gross vehicle weight dump truck equipped with a 16,000-pound rated front axle.

The unit will be equipped with a heavy-duty bumper-to-frame hitch assembly, with adjustable arms that attach the unit to the front axle with a swivel bracket that allows the axle to move independent of the push frame. \*All pushing force will be transmitted to the truck frame through the bumper attach points. The hitch assembly will be designed for a snowplow unit weighing more than 1500 pounds.

The distance between the front bumper of the truck and the centerline of the front axle will be approximately fifty (50) inches. The plow will be raised hydraulically and will have a minimum lift of ten (10) inches from road surfaces with a cylinder having a minimum bore of three and one-half inches, inside diameter.

The hydraulics will be supplied by the truck hydraulic system with quick disconnects located approximately twelve (12) inches behind the front bumper. The unit will require a maximum of 1450 pounds per square inch to lift the plow. Quick disconnect couplings supplied with the hoses will be Snap-Tite, H Series Valved Nipples, or equal -8 Size (three required).

All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual snowplow unit. Each box will contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

\*Alternate hitch assemblies are acceptable.

#### **HOPPER SPREADER FOR A TANDEM DUMP TRUCK (MINIMUM SIZE - 13 CUBIC YARDS):**

General: the hopper spreader will have a minimum capacity of thirteen (13) cubic yards. The unit will be a hopper-type body complete with a built-in materials spreader suitable for mounting in a tandem dump truck.

The unit will be of sturdy construction and will be furnished in a completed state and ready for mounting and operation. The spreader will comply with the requirements stated in these terms and conditions. Any parts or attachments necessary to form a complete working unit will be furnished.

The spreader will be capable of spreading granular salt in a uniform manner at specified rates ranging from a minimum of 250 pounds for each single lane and two-lane mile at speeds ranging from ten (10) to thirty (30) miles per hour. The rate of 300 pounds for each two-lane mile will be achieved at ten (10) miles per hour.

Body: the body will be of heavy-duty welded construction. Sides of the body will have a minimum of 45 degrees of slope for the easy flow of deicing materials onto the conveyor chain. The body side support members will be designed with angles or channel members for added strength. There will be a minimum of six (6) upright side supports on each side of the body constructed of a minimum of ten- (10) gauge steel.

These supports will extend to the full height of the body taper. The hopper will be constructed so that the

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rearmost upright support rests just inside the dump body. The top rim of the hopper box will be approximately sixty-two (62) inches above the floor of the dump body.

The unit will be equipped with a hinged type protective cover grill screen that is two and one-half inches (2 1/2) by two and one-half (2 1/2) inches by five-sixteenth (5/16) of one inch in size, and that is elevated in the center to keep large objects from entering the box.

Conveyor: the conveyor will have an overall width of twenty-four (24) inches. The conveyor drive will be adequate for the types of material being spread. The conveyor plate will be replaceable. The conveyor chain will be protected from coarse material entering the chain links that may cause damage. Provisions will be made to lubricate the front chain bearings while the unit is installed on the dump truck. The conveyor will be driven with a hydraulic motor having a displacement of six and two-tenth (6.2) cubic inches, and a gear reduction unit with a twenty-five to one (50:1) ratio.

Spinner assembly: the spinner assembly will consist of a polyurethane disc, eighteen (18) inches in diameter, with six (6) vanes formed into a single unit attached directly to the shaft of the hydraulic drive motor. The salt discharged from the conveyor will travel (or slide) in a chute to the spinner.

The chute will be smooth, non-clogging, and will have a hinged or removable top. Four (4) adjustable deflectors will define the salt discharge pattern.

Control valve: the control valve will be a Fluid Controls number 2FFL12-D6-6-6-7/15S, or equal, and is noted here for information only, as it will exist on the truck as a standard feature. The central hydraulic system installed on the truck will be used to power this control valve.

Feedgate control: the feedgate control unit will have an adjustable control for the amount of material being spread and to maintain a fixed self-locking setting.

Lift hooks: the hopper spreader unit will have four (4) lift hooks, one located at each corner of the hopper.

Dump body mounting: the hopper spreader will be secured to the dump body to prevent the spreader body from bouncing or sliding during travel. A channel member will extend to the side of the dump body and will lock on the tailgate locks to prevent movement of the spreader.

Miscellaneous: all hydraulic hoses will be of sufficient size and will be rated at 2,500 pounds per square inch. Quick disconnect couplings will be provided for hoses as follows: Snap-Tite, H series valved nipples, or equal. The spinner will be -8, the auger will be -12, and the return will be -20. All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual hopper spreader unit. Each box will also contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

#### **SALT SPREAD-RATE CONTROL DEVICE FOR BOTH SINGLE AND TANDEM AXLE TRUCKS:**

The unit will be a microprocessor based ground speed oriented closed loop control system designed to control the output of de-icing materials being applied to roadway pavements. The system will include, as a minimum, the control system console, a truck speed system sensor, a pulse width modulated hydraulic control valve, a feedback flow transducer, and all wiring harness and mounting hardware necessary for

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the complete installation of the system.

The components of the system will be designed to allow for installation onto the truck utilizing the existing hydraulic system of the truck.

The spray control system will be a single control channel ground speed oriented system and will be a closed loop microprocessor-based type unit with a non-volatile control memory. Automatic calibration and programming flexibility will be a part of the system.

The system will operate in the modes of ground speed oriented closed loop, manual set, blast, and unload. Each system will contain an automatic switch-over from a closed loop operation to an open loop operation with a display indicator in the event there is a loss of the rate sensor signal.

The control console digital readout will display the actual application rate, vehicle ground speed, the distance of the route driven, and the total quantity of the de-icing material applied. The connections for the programming and output cables for the material and trip information printer will be included.

The control system will accumulate and display both the current distance and the total distance of the de-icing application operations, the quantity of the material applied, and the time required to perform the operation. The selection, calibration, and display of a maximum of four (4) separate rates of de-icing materials with independent application rates of each material will be included in the console programming. A variable programmed digital access code lockout for the application rate and the programming data will also be included.

The system will have the capability of being attached to a laptop (notebook) computer and printer and download the accumulated data onto hard copy.

A pulse width modulated (PWM) solenoid flow control cartridge valve and an electronic valve driver will also be provided. The cartridge valve assembly will be designed so as to be installed into the central hydraulic system spreader control valve assembly of the truck.

A control valve with a PWM solenoid flow control valve for the truck hydraulic system will be provided.

A closed loop digital feedback flow sensor will be provided and will be of the turbine digital pulse type. The sensor will be constructed of stainless steel with non-corrosive internal components; will be capable of normal pulse operation in the flow ranges of two hundred (200) to one thousand (1,000) pounds per mile discharge rates; and will allow for high unload condition flow rates without the failure of the internal components.

The sensor system will be designed so as to provide normal spray application rates of two hundred (200), two hundred and fifty (250), four hundred (400), five hundred (500), eight hundred (800), and blast or one thousand (1,000) pounds of material per mile of roadway at speeds of zero (0) to fifty-five (55) miles per hour (mph). The flow sensor will be designed so as to be installed into the material output lines to report the pounds per mile discharge rate feedback to the control system.

The electrical connections for the feedback flow sensor and the solenoid valve will be of the weather resistant type as manufactured by Packard electric, or equal. All electrical wiring and components required to install the system onto the electronic speedometer drive circuit of the trucks will be provided.

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A compatible interface of the electronic components of the truck and the control system will also be provided. The control system will be provided in a status ready for operation with all entries of programming and calibration made to the microprocessor components.

The Salt Spread-Rate Control Device System Unit will be the Dickey-John ICS 2000 or equal unit.

The data collected during performance of snow and ice removal activities shall be provided to the Department and downloaded following each call-out or as determined by the Department.

### **TRUCK MOUNTED LIQUID CHLORIDE SOLUTION DISPENSING UNIT FOR V-BOX HOPPER SPREADERS:**

Description: the truck mounted, hydraulic, v-box hopper liquid chloride dispensing system will maintain a consistent ratio of liquid chloride solution to a predetermined granular deicing material output. This system will operate in conjunction with the ground speed oriented spreader controls and provide a linear flow of liquid chloride solution at vehicle speeds ranging from 3 to 50 miles per hour.

Component configuration: the storage tanks for the dispensing unit will be mounted on the V-box hopper spreader so as not to interfere with the installation (or the dismantling) of the V-box hopper spreader on the truck. The mounting hardware will consist of three-sixteenth of one inch by two (2) inches by two (2) inches angle iron, fabricated steel carriers.

Hydraulic power unit: the pump for the dispensing unit will be of geroler design, be driven by the hydraulic motor and be capable of producing 2,000 revolutions per minute. The pump and motor will be coupled via a tooth and jaw type coupler and with proper alignment.

Storage tanks: the storage tanks for the liquid chloride dispensing system will have a minimum capacity of 120 gallons and will hold liquid materials which have a maximum specific gravity of sixteen (16) pounds per gallon. The fill pipe will have a one- (1) inch in diameter female quick coupler.

Spray nozzles: the liquid chloride dispensing system will have two (2) spray nozzles constructed of brass. These nozzles will be mounted so as to dispense liquid chloride solution onto the spinner of the V-box hopper spreader. The nozzles will maintain a 120-degree fan spray throughout the flow rate of the liquid chloride solution.

### **1.03—Vendor Responsibilities**

#### **DRIVERS:**

Furnish a minimum of two (2) drivers throughout the duration of the winter season for each truck unit. Provide drivers that are citizens of the United States of America and meet the minimum guidelines as outlined in 601 KAR 1:005 Section 2 (1-11). For a copy of this regulation go to the link provided below:

<http://www.lrc.state.ky.us/kar/601/001/005.htm>

Emergency situations will be handled in accordance to the Federal Motor Carrier Safety Regulations

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(FMCSR) Title 49 of the Code of Federal Regulations (49 CFR) Part 390.23, Current Edition. For a copy of this regulation go to the link provided below:

[http://a257.g.akamaitech.net/7/257/2422/09nov20051500/edocket.access.gpo.gov/cfr\\_2005/octqtr/49cfr390.23.htm](http://a257.g.akamaitech.net/7/257/2422/09nov20051500/edocket.access.gpo.gov/cfr_2005/octqtr/49cfr390.23.htm)

Proof of citizenship shall be provided upon demand by the Transportation Cabinet. If at any time the vendor is found to have hired a driver who does not meet the above qualifications, this contract can be terminated by the Cabinet with no penalty or additional cost to the Commonwealth. KYTC also reserves the right to request contract funds to be refunded back to the Cabinet should such a cancellation occur.

Train drivers in the operation of all retrofit snow and ice equipment. Drivers are to arrive at the base of operation with working knowledge of all truck equipment.

Operate the snow and ice unit in adverse weather conditions, twenty-four (24) hours a day, seven (7) days a week, including holidays, if necessary. Operators will comply with all laws and regulations governing the operation of their trucks. This may require backup operators in order to provide a continuous operation.

**NOTE:**

Drivers are only allowed to operate trucks for a maximum of twelve (12) continuous hours. Contractor shall make arrangements to rotate replacement drivers when snow and ice operations extend for periods greater than twelve (12) continuous hours.

**OPERATIONS:**

Furnish additional support persons as needed at no additional cost to the Department to assist in the coordination of the operation of the trucks or to make repairs to trucks that have broken down and are not back in service in a timely manner.

Furnish all trucks at the base of operations, unless otherwise stated. These trucks will be used on Interstate, Parkway, and other major arterial routes, unless otherwise specified in these Terms and Conditions.

Trucks may also be used on other routes, suitable for their operation, as determined by the Department. Truck road tractors will be permitted if they are equal to or exceed the minimum G.V.W. requirements.

Plowing will be defined as the plow blade being in contact with the pavement. No down time will be charged to the Vendor for reasonable replacement time. However, the Vendor is responsible for furnishing the blade at his cost. Blades shall be made of metal.

Instruct operators that they will be under the supervision and subject to the orders of the Department, who will direct the time and place for the use of the Vendor's equipment and the rate of application of deicing chemicals.

Instruct operators to inform the base of operations for those times that the truck unit is out of service, such as rest periods, lunch breaks, or other periods when the truck unit is parked.

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Keep the de-icing material flowing, when required, while operating on the assigned routes. In the interest of conserving salt both from an economic and from an environmental standpoint, instruct the operators to make a concerted effort to control the use of excessive amount of salt on the roadways through proper calibration techniques. Each truck unit shall be recalibrated at any time (at Contractor's expense) upon determination by the Department that said truck is not performing per Department requirements. The calibration and testing of the Vendor trucks will be conducted under the direction of the Department. Failure to comply with the Department's request for recalibration shall result in adjustment to the Dedicated Service fee in the amount of **\$250.00 per occurrence** or cancellation of the contract if the Department so desires.

Require the operator of each truck unit to keep an individual log for that unit for all activities performed by the unit for the duration of each call-out period. At the conclusion of the call-out period, the Contractor's log for each unit will be compared with the Department's log, and brought into agreement. The Contractor's log and the Department's log will be signed by the Contractor's employee or representative to verify that the two (2) logs are in agreement.

Require operators to contact the Department at the base of operations during snow and ice removal operations a minimum of every sixty (60) minutes via their approved two-way radio communication system to report current road conditions, salt and liquid chloride usage, operations status of the equipment, and any problem areas that are observed. Vendor trucks whose operators fail to comply with this requirement will be placed out of service from the time of the last contact with the base of operations.

Require the operators to proceed to their assigned "Staging Area" on their assigned priority route during those periods during a snow and ice emergency event when Vendor's operators are asked to do so. In the event that the operators may need to deviate from this procedure, they must notify the Department base of operations via their approved two-way radio communication system prior to their deviation and again when they return to the designated area. If for any reason during this period the operator does not respond to a callback from the base of operations, the truck will be placed out of service from the time of the last contact with the base of operations.

The Contractor's log will remain in the Contractor's possession until April 15<sup>th</sup> of each contract year. The Department's log will be the document used to determine the Contractor's payment for each pay period.

**Provide the name and phone number of a contact person who will be on call on a twenty-four (24) hour basis.** This person will be responsible for calling out each operator of the Vendor upon request from the Department. Provide the phone number of the operators of each truck that is on call for snow and ice removal.

Hold the Department and all its officers, agents, and employees harmless from all suits, actions, or claims of any character brought on account of any injury or damages sustained by any person or property from any actions or of any negligence in performance of the above named equipment.

#### **PROOF OF OWNERSHIP:**

Furnish proof of ownership or possession for each piece of equipment. This will include:

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OWNER:  
MAKE:  
MODEL YEAR:  
G.V.W.:  
LIEN HOLDER:

If vendor will be purchasing new trucks for this contract, it is the vendor's responsibility to provide this information to the Division of Purchases prior to October 1 of year the contract becomes effective. The annual retrofit payment **shall not** be made until this information has been provided and registration has been confirmed.

If at anytime the vendor replaces a contracted truck, the vendor is required to submit the above information for the new truck to the Division of Purchases prior to operation. Replacement trucks are subject to all inspections and must meet the same specifications of the truck for which it is replacing.

If the vendor is leasing a truck to retrofit, proof of a legal lease agreement shall be submitted to the buyer prior to award of contract. Proof will also be required annually prior to retrofit payment. A copy of the legal lease agreement will be considered proof of such agreement.

The vendor is responsible for ensuring any and all sub-contractor's trucks meet all contract requirements including but not limited to, licensing, registration, and insurance.

If using sub-contracts the vendor is required to submit a list of subcontractors with a contact name and phone number prior to award of contract. This list must be verified for accuracy annually.

#### **EQUIPMENT:**

Furnish equipment that is in good mechanical working condition with all maintenance and repairs including all fuel and lubrication necessary for its operation.

Provide verification to the Department at the time of the final inspection that new equipment attachments have been purchased.

Furnish tire chains and use them as needed, or as directed by the Department. Provide an adequate quantity of snowplow blades at the base of operations as replacements for blades that have worn out.

The Department may at its discretion elect to install AVL (Automatic Vehicle Location) or GPS equipment on the Vendor's truck in conjunction with the Snow and Ice Removal Program. This AVL equipment will be the property of the Department, and the equipment will be returned to the Department at the end of the Master Agreement Contract period.

The Vendor will be responsible for any damage to the AVL or GPS equipment beyond the normal wear and deterioration of the equipment.

#### **LICENSING:**

**Trucks shall be properly licensed throughout the entire year for the duration of the contract.** All units shall be verified for proper licenses prior to annual retrofit payment and dedicated service fee. No



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payment will be made until verification is complete. **If at any time trucks are found to not be properly licensed or insured, all payments will be stopped, the Dedicated Service Fee shall be withheld by the Department, and the contract may be cancelled.**

Trucks shall be registered at or above the following minimum weights:

Single Axle: 44,000 lbs.

Tandem: 62,000 lbs. \*\*\*Requires KYU Number

Tri-axle: 73,000 lbs. \*\*\*Requires KYU Number

**This registered weight must be greater than the combined weight of the truck, the retrofit equipment, and the maximum amount of salt specified for the truck type (i.e. highest gross weight of truck, equipment, salt and fuel during operation).**

#### **INSURANCE:**

Trucks shall be properly insured for the duration of the contract. Evidence will be furnished to the Transportation Cabinet Division of Purchases each year that public liability (General Liability) insurance is carried on the above equipment and their operators in the following amounts:

Property \$1,000,000.00

Personal \$1,000,000.00

And worker's compensation insurance in accordance with the requirements of KRS 45A.480 and KRS 342.

\*\*\*\**This is in addition to the vendor's vehicle insurance.*\*\*\*\*

Vendor must submit an ACORD Certificate (or equivalent) with the certificate holder listed as:

KYTC Div of Purchases  
ATTN: Lindsay Jackson  
200 Mero St, E4-15-02  
Frankfort, KY 40622

See attachment for a sample form.

Any damage claims caused to the Vendor's equipment by state-owned equipment operated by Department personnel will be submitted to the state board of claims for resolution.

#### **FINANCIAL CONDITION AND DISCLOSURE REQUIREMENT:**

Furnish the Division of Transportation Purchases with the latest and most current financial disclosure statement upon request.

#### **BACKUP UNITS:**

Should the vendor provide backup retrofit trucks, these units shall meet all specifications, terms and conditions of this contract. This includes but is not limited to proper licensing, insurance, and operator qualifications. Vendor shall notify the Department of such units so they may be inspected.

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#### **1.04—Department Responsibilities**

Inform the Vendor that his truck operators will be under the direct supervision of the Department's supervisor at the base for operations.

Provide snow plowing and salting instructions to the Vendor's operators in the same manner as provided to the Department's operators.

Furnish all de-icing materials and forms at the base for operations.

Furnish the Vendor's operators with their primary routes for snow and ice removal, along with an estimated time to complete plowing or salting operations and with an application rate for the de-icing chemicals that are to be applied.

The Department shall coordinate the retrofit inspections each year. A copy with all attachments will be placed in the bid file and in the District Office. A copy will also be made available to the vendor. If the truck fails inspection, retrofit payment will not be made until truck is in compliance and a new inspection completed indicating the truck has received a "Passed" rating. (See Section 2.17 for details.)

Complete a vendor performance evaluation form after April 15<sup>th</sup> each year.

#### **1.05—Bid Items**

##### **ANNUAL RETROFIT-**

This applies for the length of the Master Agreement Contract and no adjustments shall be made.

This includes all costs to retrofit the truck unit as specified for snow and ice operations. This will include the alteration of the truck unit and the procurement of the designated snow and ice equipment attachments and accessories. These will be new equipment items and will include the following:

- 1) Two-way radio.
- 2) Ground speed control.
- 3) Snowplow (specified type) front mounted.
- 4) V-box hopper salt spreader.
- 5) Liquid chloride dispensing unit to discharge at the salt spreader spinner.
- 6) Parts and labor to retrofit and provide adequate hydraulic or electric power systems.
- 7) All other items as required in these Terms and Conditions.

Payment will be made after confirmation of proper registration and insurance, starting September 1 each year of the Master Agreement Contract, upon verification that all contract provisions relating to this item are furnished. All items for payment will require a detailed invoice from the Vendor. However, in the event that a truck unit retrofit is not completed prior to the November 1 deadline, or if the Vendor fails to provide the truck unit in a ready status for inspection prior to November 1 in any subsequent year of the Master Agreement Contract, the Department reserves the right to cancel said contract.

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**Note: Each truck unit will be considered on an individual basis based on the bids that are received for each unit.**

Note: Vendor is responsible to ensure that the equipment does not exceed highway load limits.

#### **1.06—Established Pay Items**

##### **DEDICATED SERVICE \$2000.00/YR:**

This includes the cost of providing one unit for exclusive use at the Department's direction during snow and ice removal operations on an annual basis. Payment will be made after April 15 of each year of the Master Agreement Contract and will be based upon the contractor's compliance and performance of the terms and conditions of this Master Agreement. The following infractions shall result in a prorated reduction or nonpayment of the Dedicated Service Fee as a penalty:

Failure to respond to call-outs in a timely and proper manner (\$250.00/occurrence)

Failure to provide properly trained drivers (\$250.00/occurrence/driver)

Failure to calibrate equipment upon request (\$250.00/occurrence)

Failure to have trucks and equipment properly inspected (total nonpayment and contract may be cancelled)

Failure to maintain truck license and insurance (total nonpayment or contract cancellation)

A Performance Evaluation with a score of Poor on line 8 (Overall Performance) will automatically deduct \$1000.00 from this payment. Other deductions may apply.

A Performance Evaluation with a score of Unsatisfactory on line 8 (Overall Performance) will automatically result in non-payment of the dedicated service fee for that snow season.

**All trucks shall be properly registered and insured for the entire year in order to receive this payment.**

##### **SALTING AND PLOWING OPERATION \$90.00/HR BASE RATE**

November 1 - April 15 each year of the Master Agreement Contract

Payment for Salting and Plowing Operations in the snow and ice removal program of the Master Agreement Contract (November 1 - April 15) shall be made at a base rate of \$90.00 per hour.

This includes all costs for operating a fully operational and equipped snow and ice truck as specified by the Master Agreement Contract and the contract administrator. A minimum time period of four (4) hours will be a guaranteed payment for each truck unit on each call-out; in addition, a two (2) hour minimum guaranteed payment shall be made if conditions require a second or subsequent shift to relieve the prior shift due to having worked the maximum number of hours per State and Federal Regulations.

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Payment for this item will be made, at a minimum, on a monthly basis for the hours recorded and verified in the Department's logbook and the logbook of the Contractor's operator for each truck unit.

### **TRAINING \$25.00/HR**

Require a minimum of two (2) operators for each retrofit snow and ice removal truck to attend training at the beginning of the snow and ice season. Training will be conducted by the Department and will be completed within two weeks of the November 1 snow season date.

This training will also be conducted in conjunction with training for employees of the Department and will be conducted on an annual basis. Payment for this training will be made at the rate of twenty-five dollars (\$25.00) per hour. Payment for travel time shall not be permitted.

A copy of the training log is required to be submitted with the invoice for the annual Retrofit Cost before payment can be made.

In the event that the Vendor adds new employees as operators during the course of the winter snow and ice season who did not receive the required training, the Department will conduct periodic training sessions during the snow season, as necessary, for all new Vendor operators. These new operators will be required to attend the training prior to operating a snow and ice removal truck for the Department. Failure to comply with this training requirement with new operators may result in a prorated reduction of the payment for Dedicated Service.

## **Section 2—Terms and Conditions of the Master Agreement**

### **2.00—Scope of the Contract**

The KYTC Division of Purchases issues this Master Agreement for Retrofit Snow and Ice Trucks

### **2.01—Contract Components and Order of Precedence**

The Commonwealth's acceptance of the offer indicated by the issuance of an Award by the KYTC Division of Purchases shall create a valid Master Agreement consisting of the following:

1. The written Master Agreement between the Parties;
2. Any Addenda to the Solicitation;
3. Any provisions of the Solicitation, RFB 605 0800003050, and all attachments thereto;
4. The Bidder's response to the Solicitation, and
5. The Kentucky Revised Statutes KRS 45A.

### **2.02—Initial Contract Period**

The Master Agreement will be effective upon award and expire 4/15/2011.

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NOTE: The expiration date of this contract did not change with updated terms and conditions.

However, pursuant to KRS 45A.145, the Department of Highways in the Kentucky Transportation Cabinet is only obligated to make payments on this contract during the biennium in which the contract is executed, subject to the availability of funds.

### **2.03—Optional Renewal Period**

**Not applicable.**

### **2.04—Divisions/Agencies to Be Served**

This contract shall be for use by the following Divisions/Agencies of the Kentucky Transportation Cabinet:

DIVISION OF MAINTENANCE AND HIGHWAY DISTRICT

### **2.05—Quantity Basis of Contract**

This Master Agreement has no guarantee of any specific quantity, and the State is obligated only to buy that quantity which is needed by its agencies.

### **2.06—Exception to Required Use of Contract**

The establishment of this Master Agreement is not intended to preclude the use of similar products when requested by the agency. The Commonwealth of Kentucky reserves the right to acquire large requirements through other competitive processes.

### **2.07—Basis of Price Revisions**

PRICE ADJUSTMENTS: Established line item for fuel shall be the only line item eligible for adjustments.

The Master Agreement shall be subject to an adjustment based upon fuel prices. This annual adjustment shall be processed following April 15<sup>th</sup> of each year. This fuel adjustment will be calculated monthly during the snow and ice season based on actual time worked; however, the monthly calculations for all months will be totaled and added to the contract as an adjustment only at the end of the snow and ice season. In the event the overall calculation total results in a negative amount, KYTC will make no fuel adjustment.

The fuel adjustment shall be made based upon the following formula with a sum total adjustment made for the snow and ice season (November 1 – April 15).

Formula: sum of current month fuel adjustment for months November – April.

Current Month Fuel Adjustment = (\*\*Current month average diesel fuel price – \*base diesel fuel

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price) X (\*\*constant factor of 6) X (current month's number of hours worked)

\*Base diesel fuel price is average retail price of diesel fuel in Kentucky (per AAA) effective November 1 of initial contract year.

\*\*Current month average retail price of diesel fuel in Kentucky as determined by AAA on the 1<sup>st</sup> working day of the following month during the snow and ice season.

Link to Kentucky AAA:

<http://www.fuelgaugereport.com/KYavg.asp>

\*\*\*Constant Factor of 6 equals the average diesel fuel consumption per hour for plowing and salting under loaded conditions as noted per truck manufacturer.

## **2.08—Addition or Deletion of Items or Services**

The KYTC Division of Purchases reserves the right to add to the contract new and similar items, with the consent of the vendor. If an addition is agreeable to both parties, the KYTC Division of Purchases will issue a Modification. Until such time as the vendor receives a Modification, the vendor shall not accept Delivery Orders from any agency referencing such items or services.

## **2.09—Changes and Modifications to the Contract**

No modification or change of any provision in the Master Agreement shall be made, or construed to have been made, unless such modification is mutually agreed to in writing by the Vendor and the KYTC Division of Purchases, and incorporated as a modification to the contract prior to the effective date of such modification or change pursuant to KRS 45A.210.

If the vendor believes modifications are necessary, he/she may request approval of the KYTC Division of Purchases. All contract modifications shall be subject to the provisions of 200 KAR 5:311.

## **2.10—Equipment**

The Commonwealth recognizes the rapid advancement of technology. If the vendor can provide new equipment of advanced technology after the award of the contract, the Commonwealth and the bidder may choose by mutual agreement to install such equipment. The price of the new technology equipment cannot exceed the cost of the award contract.

## **2.11—Basis of Shipment**

All shipments shall be F.O.B. Destination to the receiving agency. The vendor shall be fully responsible for all shipments and freight charges involved to the ordering agency. The responsibility for filing freight claims lies with the vendor.

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## 2.12—Notices

Unless otherwise instructed, all notices, consents, and other communications required or permitted by the Master Agreement shall be in writing.

After the Award, all programmatic communications are to be made to the Agency Contact Person listed below with a copy to the Division of Purchases.

Darrell Burks  
Division of Maintenance  
Kentucky Transportation Cabinet  
Phone: 502-564-4556  
E-mail: [Darrell.Burks@ky.gov](mailto:Darrell.Burks@ky.gov)

With copy to:

Lindsay Jackson, CPPB  
Division of Purchases  
Kentucky Transportation Cabinet  
Phone: 502-564-4630  
E-mail: [Lindsay.Jackson@ky.gov](mailto:Lindsay.Jackson@ky.gov)

After the Award, all communications of a contractual or legal nature are to be made to the KYTC Division of Purchases.

## 2.13—Deliveries

Furnish approved, properly licensed, fully equipped snow and ice removal trucks with qualified operators possessing a Commercial Driver's License (CDL) upon notice of a minimum of four (4) hours. Continuous operation may be required by the weather conditions.

Provide snow and ice trucks at the designated base of operations in full readiness with all attachments in place when responding to a Snow and Ice Emergency Callout, unless otherwise directed.

Trucks that arrive at the base of operations without all of the required equipment attachments, such as the snow plow or the two-way radio, will be required to return to their home base to retrieve the required equipment attachments.

In the event the Vendor's truck goes out of service for any reason, the operator will notify the base of operations immediately. The truck will immediately be taken off the clock and put on nonpayment status.

## 2.14—Inspection

All trucks are to be inspected, by the Department, for compliance with all retrofit specifications prior to November 1 each snow season. Retrofit payment is contingent upon receipt of a "Passed" Inspection Form by the Division of Purchases. Trucks not made available for inspections or not receiving a "Passed"

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inspection by November 1 each year shall be removed from the contract with no retrofit payment for that year and the Department reserves the right to cancel said contract.

All supplies, equipment and services shall be subject to inspection or tests by the Commonwealth prior to acceptance. In the event supplies, equipment or services are defective in material or workmanship or otherwise not in conformity with specified requirements, the Commonwealth shall have the right to reject the items or services or require acceptable correction at the vendor's expense.

## **2.15—Service Performance**

All services performed under contract shall be in accordance with the terms and conditions of the contract. It will be the agency's responsibility to ensure that such services rendered are performed and are acceptable.

The relationship between the State and the Contractor is that of client and independent Contractor. No agent, employee, or servant of the Contractor or any of its subcontractors shall be or shall be deemed to be an employee, agent, or servant of the State for any reason. The Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

Major deviations of services performed will not be made without the written approval of the KYTC Division of Purchases. Problems that arise under any aspect of performance should first be resolved between the vendor and the agency. If such problems and/or disagreements cannot be resolved they should be referred to the KYTC Division of Purchases for mediation.

## **2.16—Invoices**

Invoices shall be prepared and transmitted to the agency receiving the goods or services. Invoices shall contain, at a minimum, the following information: Contract number, item numbers, description of supplies or services, sizes, quantities, unit prices, and extended totals.

Invoices dated prior to date of service being billed shall not be accepted.

## **2.17—Payments**

The vendor shall be paid for all line items except annual retrofit fee and dedicated service fee, upon the submission of proper invoices to the receiving agency at the prices stipulated for the supplies delivered and accepted, or services rendered. Unless otherwise specified, payment will not be made for partial services accepted. Payments will be made within thirty (30) working days after receipt of a proper invoice in accordance with KRS 45.453 and KRS 45.454. (See Section 2.16 for definition of a proper invoice.) Official date of receipt shall be the date time stamped on the invoice by the District Office.

Annual retrofit fee shall be paid following:

- a. confirmation of proper truck registration in September of each contracted year
- b. receipt of correct insurance certificates by the Division of Purchases,



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- c. and receipt of an annual retrofit truck inspection form indicating "Passed" status.

Dedicated service fee will be paid following:

- a. confirmation of proper truck registration
- b. proof insurance is still in effect in April of each contracted year
- c. receipt of a Performance Evaluation showing acceptable vendor performance for the snow season.

NOTE - If deductions are required, the payment amount will be less than invoice amount. If there is a discrepancy between the billed amount and the amount paid, the Contractor shall contact the District Office for more details.

## **2.18—Post Contract Agreements**

The Master Agreement shall represent the entire agreement between the parties. Prior negotiations, representations, or agreements, either written or oral, between the parties hereto relating to the subject matter hereof shall be of no effect upon this contract. The Commonwealth shall not be required to enter into nor sign further agreements, leases, company orders or other documents to complete or initiate the terms of the contract. Any such documents so obtained will be non-binding on the State and be cause for breach of contract.

## **2.19—Subcontracts**

Unless otherwise specified, the vendor shall not contract with any other party for furnishing any of the commodities or services contracted herein. If the KYTC Division of Purchases is provided evidence of the vendor making such an arrangement, the contract shall be immediately cancelled. This provision will not be taken as requiring the approval of contracts of employment between the vendor and their personnel.

## **2.20—Assignment**

The vendor shall not assign this Master Agreement in whole or in part to another vendor at any time during the initial or optional renewal terms of the contract, without the consent, guidance and approval of the Commonwealth. Any assignment hereunder entered into, subsequent to the execution of the contract with the prime vendor, must be annotated and approved by the Commonwealth. Any purported assignment without this consent shall be null and void.

## **2.21—Cancellation**

The Cabinet shall have the right to terminate and cancel this agreement at any time upon thirty (30) days written notice served on the contractor by registered or certified mail outlining the reasons for the cancellation.

The Department reserves the right to cancel this Master Agreement Contract without any compensation to the Vendor in the event the Vendor does not comply with the requirements of this contract.

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Cancellation may also occur if at any time during the life of this contract the vendor:

- a. is found to owe outstanding highway or fuel taxes to the Transportation Cabinet,
- b. is in litigation with the Transportation Cabinet over such taxes or any other issues,
- c. is in violation with the Environmental and Public Protection Cabinet (EPPC),
- d. is found to have outstanding worker compensation taxes owed,
- e. vendor files bankruptcy,
- f. vendor's officers, directors, or owners are convicted or plead guilty to any state or federal criminal violations, or
- g. vendor is convicted for any individual or state tax violation.

## **2.22—Termination of Contracts**

A contract may be terminated for default by the vendor, for the convenience of the Commonwealth, or for lack of appropriation in accordance with 200 KAR 5:312 without any compensation to the vendor.

## **2.23—Advertising Award**

The vendor shall not refer to the Award in commercial advertising in such a manner as to state or imply that the firm or its services are endorsed or preferred by the Commonwealth of Kentucky.

## **2.24—EEO ACT**

EEO applies to this contract.

The Equal Employment Opportunity Act of 1978 applies to All State government projects with an estimated value exceeding \$500,000. The Contractor shall comply with all terms and conditions of the Act, if applicable.

## **2.25—Prevailing Wage**

If the federal government or any of its agencies furnishes by loans or grants any part of the funds used in constructing public works, and if the federal government or its agencies prescribe predetermined prevailing minimum wages to be paid to mechanics, workmen and laborers employed in the construction of the public works, and if KRS 337.505 to 337.550 is also applicable, those wages in each classification which are higher shall prevail.

## **2.26—Kentucky Sales and Use Taxes**

Sales of tangible personal property or services to the State of Kentucky and its agencies are not subject to state sales or use taxes.

## **2.27—Governing Law**

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This Master Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky and any litigation with respect to it shall be brought in state or federal court in Franklin County, Kentucky.

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**See Attached Documents for Specifications, Terms and Conditions, Drawings, and Acceptable Attachments and Contact Persons.**

**Copies of Purchase Invoices must be provided (for each truck bid) to the Department at the time of the final inspection to verify that the equipment attachment units being provided were purchased within the last three (3) years.**

**Copies of Purchase Invoices (for each truck bid) must be provided to the Department at the time of the final inspection to verify that the equipment attachment units being provided are new equipment units.**

**Rental of Retrofit Trucks for Snow and Ice Removal:**

To establish Master Agreement Contracts for the Rental of Trucks equipped with Snow Plows, V-box Hopper Salt Spreaders, and other auxiliary attachments, as specified in the following Terms and Conditions, for use in the Kentucky Department of Highways Snow and Ice Control Program.

The Master Agreement Contract will be for a period of seven (7) years, beginning on November 1, 2006, and ending on April 15, 2013.

However, pursuant to KRS 45A.145, the Department of Highways in the Kentucky Transportation Cabinet is only obligated to make payments on this contract during the biennium in which the contract is executed, subject to the availability of funds.

A Master Agreement Contract will be awarded for individual trucks at each specified location as noted. Each truck unit will be considered on an individual basis based upon the bids that are received for each unit.

**Note: the Vendor is responsible to ensure that the equipment does not exceed highway load limits.**

In the event that a retrofit truck unit is not completed by the Vendor's specified completion date, **a penalty of five hundred dollars (\$500.00) per calendar day** will be assessed for each day beyond the Vendor specified completion date that the Truck Unit is not in a ready status. These are Bonus Points to be added to the bidder's calculated score.

Copies of Purchase Invoices will be provided to the Department at the time of the final inspection to verify that the equipment attachment units being provided were purchased within the last three- (3) years. These are Bonus Points to be added to the bidder's calculated score. Truck units proposed with only some like-new equipment will not be considered for the Bonus Points.

Copies of Purchase Invoices will be provided to the Department at the time of the final inspection to verify that the equipment attachment units being provided are new equipment units. These are Bonus Points to be added to the bidder's calculated score. Truck units proposed with only some new equipment will not be considered for the Bonus Points.

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**Note: Bidders may offer truck units with all new equipment attachments, other truck units with like-new equipment attachments, and other additional truck units with used equipment. A single truck unit offering both new and used attachments will not receive bonus points. The Vendor must clearly indicate that the retrofit price for each truck is being offered with either all-new equipment attachment units, with like-new equipment attachment units, or used equipment attachment units. The Department will not choose between the three options.**

Each bidder is responsible for submitting all relevant, factual, and correct information with their bid to enable the evaluator to afford each bidder the maximum score warranted. The information will be furnished in the spaces provided and if adequate space is not available, the bidder will attach additional information that is clearly cross-referenced to the appropriate location in the solicitation (i.e., page number, paragraph, and subject).

Each Vendor must submit with their bid a current "Equal Employment Opportunity" form in order for their bid to be considered for award. The required EEO form can be downloaded from the Kentucky E-commerce website or a copy may be obtained by calling (502) 564-4630.

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### **Specifications for Rental Truck Attachments for Snow and Ice Removal:**

#### **A) Snow Plow, Hydraulic Reversing (12 Foot):**

The snowplow unit will be of the straight blade reversible type. The moldboard will be a minimum of twelve (12) feet long and forty (40) inches high and will be constructed with a minimum of six (6) vertical ribs. The unit will be curved for proper rolling of snow forward for high-speed snow removal. The moldboard will have an integral, curved snow shield that extends a minimum of twelve (12) inches ahead of the cutting edge. The moldboard thickness will be a minimum of ten (10) gauge steel and will have a two-piece cutting edge of six (6) feet, with a minimum size of one-half inch thick by six (6) inches wide, and be equipped with standard highway punchings.

The unit will be equipped with a trip spring assembly to prevent damage to the plow and the truck. This assembly will permit the moldboard to trip forward when the plow strikes an obstruction and then return to its normal position when the obstruction is removed. The unit will be equipped with adjustable skid shoes to stabilize the plow and reduce the wear to the cutting edge. The hinge point center of the snowplow unit will be a minimum of sixty (60) inches. The plow assembly will be equipped with a hydraulic mechanism to turn the moldboard to any desired position, to a maximum of thirty-five (35) degrees to the right or to the left from the centerline and lock, or remain fixed in position. The force on the blade will not exert a force on the hydraulic system in order to hold the blade in the correct position.

The hydraulic unit and any hoses provided will be rated for a minimum of 2500 pounds per square inch. The unit will be recommended for a 54,000 gross vehicle weight dump truck equipped with a 16,000-pound front axle.

The unit will be equipped with a heavy-duty bumper-to-frame hitch assembly, with adjustable arms that attach the unit to the front axle with a swivel bracket that allows the axle to move independent of the push frame. \*All pushing force will be transmitted to the truck frame through the bumper attach points. The hitch assembly will be designed for a snowplow unit weighing more than 1500 pounds.

The distance between the front bumper of the truck and the centerline of the front axle will be approximately fifty (50) inches. The plow will be raised hydraulically and will have a minimum lift of ten (10) inches from road surfaces with a cylinder having a minimum bore of three and one-half inches, inside diameter.

The hydraulics will be supplied by the truck hydraulic system with quick disconnects located approximately twelve (12) inches behind the front bumper. The unit will require a maximum of 1450 pounds per square inch to lift the plow. Quick disconnect couplings supplied with the hoses will be Snap-Tite, H Series Valved Nipples, -8 Size (three required).

All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual snowplow unit. Each box will contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

\*Alternate hitch assemblies are acceptable.

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**B) Hopper Spreader for a Tandem Dump Truck (minimum size - 13 cubic yards):**

General: the hopper spreader will have a minimum capacity of thirteen (13) cubic yards. The unit will be a hopper-type body complete with a built-in materials spreader suitable for mounting in a tandem dump truck.

The unit will be of sturdy construction and will be furnished in a completed state and ready for mounting and operation. The spreader will comply with the requirements stated in these terms and conditions. Any parts or attachments necessary to form a complete working unit will be furnished.

The spreader will be capable of spreading granular salt in a uniform manner at specified rates ranging from a minimum of 250 pounds for each two-lane mile at speeds ranging from ten (10) to thirty (30) miles per hour. The rate of 300 pounds for each two-lane mile will be achieved at ten (10) miles per hour with a \*spreader control valve setting of a minimum of one (or 0.0 gallons per minute of oil). (See control valve)

Body: the body will be of heavy-duty welded construction. The sides of body will have a minimum of 45 degrees of slope for the easy flow of deicing materials onto the conveyor chain. The body side support members will be designed with angles or channel members for added strength. There will be a minimum of six (6) upright side supports on each side of the body constructed of a minimum of ten- (10) gauge steel.

These supports will extend to the full height of the body taper. The hopper will be constructed so that the rearmost upright support rests just inside the dump body. The top rim of the hopper box will be approximately sixty-two (62) inches above the floor of the dump body (plus have minus two [2] inches).

The unit will be equipped with a hinged type protective cover grill screen that is two and one-half inches (2½) by two and one-half (2½) inches by five-sixteenth (5/16) of one inch in size, and that is elevated in the center to keep large objects from entering the box.

Conveyor: the conveyor will have an overall width of twenty-four (24) inches. The conveyor drive will be adequate for the types of material being spread. The conveyor plate will be replaceable. The conveyor chain will be protected from coarse material entering the chain links that may cause damage. Provisions will be made to lubricate the front chain bearings while the unit is installed on the dump truck. The conveyor will be driven with a hydraulic motor having a displacement of six and two-tenth (6.2) cubic inches, and a gear reduction unit with a twenty-five to one (25:1) ratio.

Spinner assembly: the spinner assembly will consist of a polyurethane disc, eighteen (18) inches in diameter, with six (6) vanes formed into a single unit attached directly to the shaft of the hydraulic drive motor. The salt discharged from the conveyor will travel (or slide) in a chute to the spinner.

The chute will be smooth, non-clogging, and will have a hinged or removable top. Four (4) adjustable deflectors will define the salt discharge pattern.

Control valve: the control valve will be a fluid controls number 2FFL12-D6-6-6-7/15S, or equal, and is noted here for information only, as it will exist on the truck as a standard feature. The central hydraulic system installed on the truck will be used to power this control valve.

Feedgate control: the feedgate control unit will have an adjustable control for the amount of material being spread and to maintain a fixed self-locking setting.

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Lift hooks: the hopper spreader unit will have four (4) lift hooks, one located at each corner of the hopper.

Dump body mounting: the hopper spreader will be secured to the dump body to prevent the spreader body from bouncing or sliding during travel. A channel member will extend to the side of the dump body and will lock on the tailgate locks to prevent movement of the spreader.

Miscellaneous: all hydraulic hoses will be of sufficient size and will be rated at 2,500 pounds per square inch. Quick disconnect couplings will be provided for hoses as follows: Snap-Tite, H series valved nipples, or equal. The spinner will be -8, the auger will be -12, and the return will be -20. All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual hopper spreader unit. Each box will also contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

### **C) Snow Plow, Hydraulic Reversing (10 Foot) for Single-Axle Trucks:**

The snowplow unit will be of the straight blade reversible type. The moldboard will be a minimum of ten (10) feet long and thirty-four (34) inches high and will be constructed with a minimum of six (6) vertical ribs. The unit will be curved for proper rolling of snow forward for high-speed snow removal. The moldboard will have an integral, curved snow shield that extends a minimum of twelve (12) inches ahead of the cutting edge. The moldboard thickness will be a minimum of ten (10) gauge steel and will have a two-piece cutting edge of five (5) feet, with a minimum size of one-half inch thick by six (6) inches wide, and be equipped with standard highway punchings.

The unit will be equipped with a trip spring assembly to prevent damage to the plow and the truck. This assembly will permit the moldboard to trip forward when the plow strikes an obstruction and then return to its normal position when the obstruction is removed. The unit will be equipped with adjustable skid shoes to stabilize the plow and reduce the wear to the cutting edge. The hinge point center of the snowplow unit will be a minimum of sixty (60) inches. The plow assembly will be equipped with a hydraulic mechanism to turn the moldboard to any desired position, to a maximum of thirty-five (35) degrees to the right or to the left from the centerline and lock, or remain fixed in position. The force on the blade will not exert a force on the hydraulic system in order to hold the blade in the correct position.

The hydraulic unit and any hoses provided will be rated for a minimum of 2500 pounds per square inch. The unit will be recommended for a 33,000 gross vehicle weight dump truck equipped with a 12,000-pound front axle.

The unit will be equipped with a heavy-duty bumper-to-frame hitch assembly, with adjustable arms that attach the unit to the front axle with a swivel bracket that allows the axle to move independent of the push frame. \*All pushing force will be transmitted to the truck frame through the bumper attach points. The hitch assembly will be designed for a snowplow unit weighing more than 1500 pounds.

The distance between the front bumper of the truck and the centerline of the front axle will be approximately fifty (50) inches. The plow will be raised hydraulically and will have a minimum lift of ten (10) inches from road surfaces with a cylinder having a minimum bore of three and one-half inches, inside diameter.

The hydraulics will be supplied by the truck hydraulic system with quick disconnects located



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approximately twelve (12) inches behind the front bumper. The unit will require a maximum of 1450 pounds per square inch to lift the plow. Quick disconnect couplings supplied with the hoses will be Snap-Tite, H Series Valved Nipples, -8 Size (three required).

All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual snowplow unit. Each box will contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

\*Alternate hitch assemblies are acceptable.

**D) Hopper Spreader for a Single-Axle Dump Truck (minimum size – 5.6 cubic yards):**

General: the hopper spreader will have a minimum capacity of five and six-tenths (5.6) cubic yards. The unit will be a hopper-type body complete with a built-in materials spreader suitable for mounting in a single-axle dump truck.

The unit will be of sturdy construction and will be furnished in a completed state and ready for mounting and operation. The spreader will comply with the requirements stated in these terms and conditions. Any parts or attachments necessary to form a complete working unit will be furnished.

The spreader will be capable of spreading granular salt in a uniform manner at specified rates ranging from a minimum of 250 pounds for each two-lane mile at speeds ranging from ten (10) to thirty (30) miles per hour. The rate of 300 pounds for each two-lane mile will be achieved at ten (10) miles per hour with a \*spreader control valve setting of a minimum of one (or 0.0 gallons per minute of oil). (See control valve)

Body: the body will be of heavy-duty welded construction. The sides of body will have a minimum of 45 degrees of slope for the easy flow of deicing materials onto the conveyor chain. The body side support members will be designed with angles or channel members for added strength. There will be a minimum of five (5) upright side supports on each side of the body constructed of a minimum of ten- (10) gauge steel.

These supports will extend to the full height of the body taper. The hopper will be constructed so that the rearmost upright support rests just inside the dump body. The top rim of the hopper box will be approximately forty-eight (48) inches above the floor of the dump body (plus have minus two [2] inches).

The unit will be equipped with a hinged type protective cover grill screen that is two and one-half inches (2½) by two and one-half (2½) inches by five-sixteenth (5/16) of one inch in size, and that is elevated in the center to keep large objects from entering the box.

Conveyor: the conveyor will have an overall width of twenty-four (24) inches. The conveyor drive will be adequate for the types of material being spread. The conveyor plate will be replaceable. The conveyor chain will be protected from coarse material entering the chain links that may cause damage.

Provisions will be made to lubricate the front chain bearings while the unit is installed on the dump truck. The conveyor will be driven with a hydraulic motor having a displacement of six and two-tenth (6.2) cubic inches, and a gear reduction unit with a fifty to one (50:1) ratio.

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Spinner assembly: the spinner assembly will consist of a polyurethane disc, eighteen (18) inches in diameter, with six (6) vanes formed into a single unit attached directly to the shaft of the hydraulic drive motor. The salt discharged from the conveyor will travel (or slide) in a chute to the spinner.

The chute will be smooth, non-clogging, and will have a hinged or removable top. Four (4) adjustable deflectors will define the salt discharge pattern.

Control valve: the control valve will be a fluid controls number 2FFL12-D6-6-6-7/15S, or equal, and is noted here for information only, as it will exist on the truck as a standard feature. The central hydraulic system installed on the truck will be used to power this control valve.

Feedgate control: the feedgate control unit will have an adjustable control for the amount of material being spread and to maintain a fixed self-locking setting.

Lift hooks: the hopper spreader unit will have four (4) lift hooks, one located at each corner of the hopper.

Dump body mounting: the hopper spreader will be secured to the dump body to prevent the spreader body from bouncing or sliding during travel. A channel member will extend to the side of the dump body and will lock on the tailgate locks to prevent movement of the spreader.

Miscellaneous: all hydraulic hoses will be of sufficient size and will be rated at 2,500 pounds per square inch. Quick disconnect couplings will be provided for hoses as follows: Snap-Tite, H series valved nipples, or equal. The spinner will be -8, the auger will be -12, and the return will be -20. All necessary hoses and attaching parts will be furnished. The parts will be boxed for each individual hopper spreader unit. Each box will also contain a set of installation instructions to insure proper installation. The unit will contain any other equipment not mentioned, but which is necessary, to make a complete and workable unit.

#### **E) Salt Rate Spread-Rate Control Device:**

The unit will be a microprocessor based ground speed oriented closed loop control system designed to control the output of de-icing materials being applied to roadway pavements. The system will include, as a minimum, the control system console, a truck speed system sensor, a pulse width modulated hydraulic control valve, a feedback flow transducer, and all wiring harness and mounting hardware necessary for the complete installation of the system.

The components of the system will be designed to allow for installation onto the truck utilizing the existing hydraulic system of the truck.

The spray control system will be a single control channel ground speed oriented system and will be a closed loop microprocessor-based type unit with a non-volatile control memory. Automatic calibration and programming flexibility will be a part of the system.

The system will operate in the modes of ground speed oriented closed loop, manual set, blast, and unload. Each system will contain an automatic switch-over from a closed loop operation to an open loop operation with a display indicator in the event there is a loss of the rate sensor signal.

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The control console digital readout will display the actual application rate, vehicle ground speed, the distance of the route driven, and the total quantity of the de-icing material applied. The connections for the programming and output cables for the material and trip information printer will be included.

The control system will accumulate and display both the current distance and the total distance of the de-icing application operations, the quantity of the material applied, and the time required to perform the operation. The selection, calibration, and display of a maximum of four (4) separate rates of de-icing materials with independent application rates of each material will be included in the console programming. A variable programmed digital access code lockout for the application rate and the programming data will also be included.

The system will have the capability of being attached to a laptop (notebook) computer and printer and download the accumulated data onto hard copy.

The calibration of the blast discharge rate will be programmed in a manner that is independent of the minimum and the maximum discharge rates. Panel mounted touch switches and LCD displays will provide the onboard programming and the display for operating information.

**A pulse width modulated (PWM) solenoid flow control cartridge valve and an electronic valve driver will also be provided. The cartridge valve assembly will be designed so as to be installed into the central hydraulic system spreader control valve assembly of the truck.**

A control valve with a PWM solenoid flow control valve for the truck hydraulic system will be provided.

A closed loop digital feedback flow sensor will be provided and will be of the turbine digital pulse type. The sensor will be constructed of stainless steel with non-corrosive internal components; will be capable of normal pulse operation in the flow ranges of two hundred (200) to one thousand (1,000) pounds per mile discharge rates; and will allow for high unload condition flow rates without the failure of the internal components.

The sensor system will be designed so as to provide normal spray application rates of two hundred (200), two hundred and fifty (250), four hundred (400), five hundred (500), eight hundred (800), and blast or one thousand (1,000) pounds of material per mile of roadway at speeds of zero (0) to fifty-five (55) miles per hour (mph). The flow sensor will be designed so as to be installed into the material output lines to report the pounds per mile discharge rate feedback to the control system.

The electrical connections for the feedback flow sensor and the solenoid valve will be of the weather resistant type as manufactured by Packard electric, or equal. All electrical wiring and components required to install the system onto the electronic speedometer drive circuit of the trucks will be provided.

A compatible interface of the electronic components of the truck and the control system will also be provided. The control system will be provided in a status ready for operation with all entries of programming and calibration made to the microprocessor components.

**The Salt Spread-Rate Control Device System Unit will be the Dickey-John ICS 2000 or equal unit.**

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**G) Two-Way Radio Specifications: VHF (150-Megahertz) Dash-Mounted - Districts 7 - 12:**

General: the two-way radio will be the latest improved model in current production (as offered to the commercial trade), will be of good quality as to workmanship and materials used, and will comply with the following:

- 1) Will operate from a 12 volt, direct current negative ground source.
- 2) Will be a sixteen (16) channel, which will transmit and receive, VHF wide band (24 megahertz), 150 to 174 megahertz, synthesized, and be capable of being field programmed and reprogrammed on transmit and receive frequencies, CTCSS encode and decode, carrier control timer, and a number of channels.
- 3) Determine the hardware, software and manuals necessary for field programming and reprogramming and provide such hardware, software and manuals as necessary. (The radio section has Toshiba T-1800 with RS-232-C capabilities).
- 4) Will be capable of turning the radio power on or off by using the vehicle ignition key.
- 5) Will have a front mounted self-contained speaker, heavy-duty microphone, and microphone hang-up switch for CTCSS disable.
- 6) Will provide all accessories and hardware needed for mobile assembly installation on the dash or the hump, including an ASPS-177 antenna.
- 7) Will provide a transmitter-receiver that has a maximum size of three (3) inches in height, eight (8) inches in width and ten (10) inches in length.
- 8) Will meet EIA, MIL STD 810 C & D specifications for shock and vibration.
- 9) Will provide an antenna connector compatible to PL-259.

**Transmitter:**

- 1) Will be solid state and will be capable of producing forty (40) watts of output (EIA).
- 2) Frequency stability: plus or minus 0.0005 percent.
- 3) Modulation: plus or minus 0.0 to 5.0 kilohertz.
- 4) Spurious and harmonic emission: - 60 decibels.
- 5) Audio response: EIA RS-152-B.
- 6) Audio distortion: 3 percent.
- 7) Fm noise - 45 decibel EIA method or - 55 decibels companion receiver method.
- 8) Will be FCC type accepted.

**Receiver:**

- 1) Frequency stability: plus or minus 0.0005 percent.
- 2) Sensitivity: 0.30 microvolt for 12-dB EIA Sinad.
- 3) Selectivity: - 80 decibels at plus or minus 30 kilohertz (EIA 20-signal).
- 4) Spurious and image rejection: - 80 decibels
- 5) Intermodulation: - 78 decibels.
- 6) Modulation acceptance: plus or minus 7 kilohertz.
- 7) Audio output: 3 watts at 5 percent distortions.
- 8) Audio response: EIA RS-204-C.
- 9) Will be equipped with an electronic impulse noise blanker.

**H) Truck Mounted Liquid Chloride Solution Dispensing Unit for V-box Hopper Spreaders:**

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Description: the truck mounted, hydraulic, v-box hopper liquid chloride dispensing system will maintain a consistent ratio of liquid chloride solution to a predetermined granular deicing material output. This system will operate in conjunction with the ground speed oriented spreader controls and provide a linear flow of liquid chloride solution at vehicle speeds ranging from 3 to 50 miles per hour.

Component configuration: the storage tanks for the dispensing unit will be mounted on the V-box hopper spreader so as not to interfere with the installation (or the dismantling) of the V-box hopper spreader on the truck. The mounting hardware will consist of three-sixteenth of one inch by two (2) inches by two (2) inches angle iron, fabricated steel carriers.

Hydraulic power unit: the pump for the dispensing unit will be of geroler design, be driven by the hydraulic motor and be capable of producing 2,000 revolutions per minute. The pump and motor will be coupled via a tooth and jaw type coupler and with proper alignment.

Storage tanks: the storage tanks for the liquid chloride dispensing system will have a minimum capacity of 120 gallons and will hold liquid materials which have a maximum specific gravity of sixteen (16) pounds per gallon. The fill pipe will have a one- (1) inch in diameter female quick coupler.

Spray nozzles: the liquid chloride dispensing system will have two (2) spray nozzles constructed of brass. These nozzles will be mounted so as to dispense liquid chloride solution onto the spinner of the V-box hopper spreader. The nozzles will maintain a 120-degree fan spray throughout the flow rate of the liquid chloride solution.

To review Drawings of Equipment Components and Configurations or to obtain a listing of Pre-approved Snow and Ice Removal Equipment Units and Contact Persons, please contact the Division of Transportation Purchases at (502) 564-4630 or the Division of Maintenance at (502) 564-4556.

Disclaimer: The Division of Maintenance maintains a listing of pre-approved makes and models of snow and ice removal attachment equipment. This listing should only be used as an example of known attachment equipment that either meets or exceeds our specifications. However, there may be other brands and models that will also meet or exceed our specifications. If you need approval of equipment other than that contained in the Department's listing, please contact:

Kentucky Transportation Cabinet  
Department of Highways  
Division of Maintenance  
Station: E3-05-01  
200 Mero Street  
Frankfort, Kentucky 40622  
**(502) 564-4556**

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**THE FOLLOWING LIST IS PROVIDED TO ASSIST PROSPECTIVE BIDDERS IN LOCATING SUPPLIERS OF RETROFIT SERVICES. IT IS NOT INTENDED TO BE AN ENDORSEMENT OF THESE SUPPLIERS NOR SHOULD THE LIST BE CONSIDERED ALL INCLUSIVE.**

### **Truck Retrofitters**

#### **Manning Equipment Inc**

12000 Westport Road  
Louisville, KY 40245  
(502) 426-5210

#### **Edinger J & Son Truck Bodies**

1012 Story Avenue  
Louisville, KY 40206  
(502) 228-4083

#### **Fontaine Truck Equipment Company**

5620 Fern Valley Road  
Louisville, KY 40228  
(502) 961-7706

#### **Deed's Equipment Company, Inc**

7720 Records Street  
Lawrence, IN 46226  
317-545-3331

#### **Metro Equipment**

340 Blue Sky Parkway  
Lexington, KY 40509  
859-263-5064

#### **Reliable Truck Equipment Company**

32 Kenton Lands Road  
Erlanger, KY 41018  
859-331-8800

#### **Tebco of Kentucky, Inc**

100 White Hall Shrine Road  
Richmond, KY 40475  
800-284-2014

#### **Worldwide Equipment Inc**

945 Nandino Boulevard  
Lexington, KY 40511  
(859) 281-5152

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**Transportation Cabinet  
Master Agreement  
Terms and Conditions**

This is a Master Agreement for: Retrofit Truck Snow and Ice Trucks

**Initial contract period**

This contract will be for the initial period of 7 years from date of award.

**Agencies to be served**

This contract shall be for use by the following agencies of the Kentucky Transportation Cabinet: Highway District 9 and Division of Maintenance.

No shipments shall be made except upon receipt by contractor of an official order from a using agency.

**\*\*\*\*\*Inspection\*\*\*\*\***

All supplies and equipment shall be subject to inspection or test by the state prior to acceptance. In the event supplies or equipment are defective in material or workmanship or otherwise not in conformity with specified requirements, the state shall have the right to reject them or require acceptable correction at the vendor's expense.

Agreement between parties

In submitting a bid, the bidder acknowledges and agrees to be bound by the terms and conditions of the solicitation.

The bidder agrees that a resulting contract is the complete and exclusive statement of the agreement between the parties, which supersedes all prior agreements, oral or written, and any communication(s) between the parties relating to the subject matter of this solicitation. It is further agreed between the parties, that any valid changes of contractual agreement must be formalized by issuance of a modification from the Division of Purchases.

**\*\*\*\*\*Extension period\*\*\*\*\***

This contract may be extended at the termination of all contract renewal periods for additional time not to exceed **90 days**. This extension must be accompanied by the written approval of the vendor and the Division of Purchases

**\*\*\*\*\*Quantity basis of contract\*\*\*\*\***

No guaranteed quantities

It is herein set forth that the contract established has no guarantee of any specific quantity and that the state is obligated only to buy that quantity which is needed by its agencies. No estimates of any quantity is implied nor inferred from this contract.

**\*\*\*\*\*FOB basis of shipments\*\*\*\*\***

This contractor shall be fully responsible for all shipments, fob destination, to the Kentucky agency location indicated on each order. All shipments must be freight prepaid. Quotations of unit prices on the

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contract shall be fob, receiving agency.

**\*\*\*\*\*Cancellation clause\*\*\*\*\***

The Division of Transportation Purchases may cancel this contract by giving the vendor written notice thirty (30) days prior to effective date.

**\*\*\*\*\*Termination of contract\*\*\*\*\***

The state reserves the right to terminate contract for convenience when requirements under the contract no longer exist or changes in such supplies or services render the contract as not responsive to the needs of the state. A written notice will be given to the vendor at least thirty (30) days prior to such proposed termination date.

**\*\*\*\*\*Exception to required use of contract\*\*\*\*\***

The establishment of this master agreement is not intended to preclude the use of similar products when requested by the agency.

**\*\*\*\*\*Addition of items\*\*\*\*\***

The Division of Purchases reserves the right to add any like or new items to the contract awarded. Only the Division of Purchases may issue authorization for such add-ons. The Division of Purchases will determine if item usage warrants such an addition to a contract. Should an add-on be in agreement with the division of purchases and the contractor, a contract modification will be issued by the Division of Purchases. The contractor will not accept orders from the agency for items not stated on the master agreement referencing the contract number until such time as a modification is received.

**\*\*\*\*\*Extending master agreement to other agencies\*\*\*\*\***

The Division of Transportation Purchases reserves the right, with the consent of the vendor, to offer this master agreement to other state agencies or political subdivisions who may have need for the product (s).

**\*\*\*\*\*Payments\*\*\*\*\***

The vendor shall be paid, upon the submission of proper invoices to the receiving agency at the prices stipulated for supplies delivered and accepted, or services rendered. Unless otherwise specified, payment will not be made for partial deliveries.

**Governmental restrictions**

In the event any governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship, or performance of the items on this master agreement prior to delivery, it shall be the responsibility of the vendor to notify the Division of Transportation Purchases in writing, indicating the specific regulation which requires such alterations. The commonwealth reserves the right to accept any such alterations, including any subsequent price adjustments, or to cancel the contract.

**ALL PROVISIONS OF THE SOLICITATION WILL BE PART OF THE RESULTING CONTRACT (S).**